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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,301	09/26/2003	Hans Peter Noack	01840.0002-US-W1	4462

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EXAMINER

HUG, ERIC J

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/672,301	Applicant(s) NOACK, HANS PETER	
	Examiner Eric Hug	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003 and 24 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Klose et al (WO 02/057194, English abstracts provided).

Klose discloses a process for making mineral wool fibers from waste catalysts derived from the oil refining industry. A characteristic catalyst material comprises between 30-55% SiO₂ and between 30-50% Al₂O₃ (page 7, fourth paragraph). The catalyst can be a zeolite of type X or type Y (page 5, third paragraph) and have a particle size between 50-70 microns (page 6, last paragraph). MgO, TiO₂, Na₂O, K₂O, and La₂O₃ are all disclosed at below the claimed levels. The catalyst material is heated up to as high as 600 degrees C before melting (page 9, second paragraph), presumably to drive off volatile compounds.

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on March 26, 2001. It is noted, however, that applicant has not filed a certified copy of the application as required by 35 U.S.C. 119(b).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirayama (US 4,029,495) in view of Harter et al (US 2,467,889).

Hirayama discloses a process for recovering a heavy metal component such as Ni, Co, Mo, V, or Cu from a spent catalyst used in the petrochemical or petroleum industry. Also disclosed is a process for recovering and reutilizing the catalyst support to produce ceramic fibers of Al_2O_3 and SiO_2 (equivalently mineral wool). The fibers are produced from a melt comprising the catalyst as the heavy metal component is separated therefrom. See column 3, line 57 to column 4, line 5, and Example 4. The Al_2O_3 and SiO_2 content of the catalyst support used by Hirayama in Example 4 is not suitable to produce fibers having the desired levels of Al_2O_3 to SiO_2 , thus additional Al_2O_3 or SiO_2 must be provided in the melt. In Example 4, the Al_2O_3 content of the catalyst material is only 13.8%, which does not meet the criteria of 35% of instant claim 1. By addition of bauxite, the Al_2O_3 and SiO_2 content is adjusted to 53% and 45%, respectively. This provides the desired levels of Al_2O_3 and SiO_2 needed to make the fibers. Note that these levels exceed the criteria of 40% set forth in instant claim 2.

Hirayama does not expressly disclose using a spent catalyst having at least 35% Al_2O_3 . However, it is clear that Hirayama teaches using a spent catalyst as a primary material in making mineral fibers. Hirayama also teaches that the desired levels of Al_2O_3 and SiO_2 needed to make

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the fibers are greater than 40%. The claims are unpatentable, because although Hirayama uses an example of a spent catalyst that has too low a level of Al_2O_3 , it is clear that if one uses a spent catalyst having the desired Al_2O_3 and SiO_2 content to begin with, one would not need to add bauxite or other material to adjust the ratio as needed. Applicant has disclosed that such catalyst materials are typical in the art, therefore at the time of the invention, it would have been obvious to one skilled in the art to improve upon the process of Hirayama by providing spent catalyst having Al_2O_3 and SiO_2 content of at least 40%, as per instant claim 2, thereby achieving the desired levels of Al_2O_3 and SiO_2 without having to add other raw materials to the melt.

Regarding claim 3, Hirayama discloses MgO as being a component of the catalyst support material. The claimed amount of MgO would be less than 5% in a typical catalyst as disclosed by Applicant.

Regarding claims 4-10, none of these components or features of the catalyst is disclosed by Hirayama. However, as disclosed by Applicant, they are typical of catalyst materials used in the chemical industry as a cracking catalyst. The claims are unpatentable, because the Federal Circuit's predecessor court, the CCPA, has repeatedly held that presumption of obviousness was formed, based on the knowledge of a routineer, whenever a difference was deemed minor. See *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960), where it was held that the selection of a known material based on its suitability for the intended use is within the skill of a routineer in the art (the selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious).

Harter discloses the production of mineral wool from kaolin clay. Harter is cited here to exemplify that the levels of silicon oxide (silica), aluminum oxide (alumina), magnesium oxide

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(magnesia), titanium oxide, sodium oxide (soda), and potassium oxide (potash), given by instant claims 1-5 are typical in a melt for making mineral wool.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 provides for the use of a powder-type cracking catalyst as a base material or aggregate in the production of mineral wool, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gorobinskaya et al (US 6,125,660) discloses making mineral fibers from waste glass.

DeGreve et al (US 5,352,258) discloses the production of glass fibers from scrap glass fibers.

Gerevich et al (SU 1300776) discloses a heat-insulating element comprising a layer of refractory material containing spent catalyst.

Ranlov et al (WO 99/28252) discloses making mineral fibers from a melt of briquettes formed from metallic industrial waste.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192. The examiner can normally be reached on Monday through Friday, 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


jeh